

AMENDMENTS TO THE CLAIMS:

Please replace the previous listing of claims with the following listing of claims.

Listing of Claims

1. (Currently Amended) A vehicle having a longitudinal axis between a front and rear of the vehicle such that a lateral direction is defined perpendicular to the longitudinal axis and an outer skin along sides of the vehicle, comprising:

a side impact crash sensor ~~for detecting a~~ arranged inward from the outer skin and to react to lateral force or acceleration applied to a side of the outer skin of the vehicle resulting from an impact of an object with the outer skin along a side of the vehicle;

~~transfer~~ means interposed between the outer skin along the side of the vehicle and said sensor for transferring the lateral ~~force applied to the side of the vehicle~~ acceleration to said sensor; and

an occupant restraint device connected to said sensor and arranged to deploy an occupant restraint based on the ~~force or lateral~~ acceleration detected by said sensor,

said sensor including a housing defining an interior and a mass arranged in said interior of said housing and movable in said interior of said housing relative to said housing in response to lateral acceleration of said sensor housing resulting from the transference of the lateral acceleration of the outer skin of the vehicle through said means to said sensor, movement of said mass being monitored such that said sensor initiates deployment of said occupant restraint based on movement of said mass.

2. (Currently Amended) The vehicle of claim 1, wherein said ~~transfer~~ means are arranged to ~~adjust~~ account for mismatch between a point of impact of ~~[[an]]~~ the object on the side of the vehicle and said sensor.

3. (Currently Amended) The vehicle of claim 2, wherein said ~~transfer~~ means comprise a plate ~~capable of remaining~~ which remains substantially undistorted in form upon ~~application of the lateral force to~~ impact of the object with the outer skin along the side of the vehicle.

4. (Original) The vehicle of claim 3, further comprising a main structural beam, said plate being mounted to said main structural beam.

5. (Currently Amended) The vehicle of claim 4, further comprising a door, said main structural beam being arranged in said door.

6. (Original) The vehicle of claim 3, wherein said plate is circular.

7. (Currently Amended) The vehicle of claim 3, further comprising a door having an inner panel and an outer panel defining the outer skin along the side of the vehicle, said plate being located between said inner panel and said outer panel.

8. (Currently Amended) The vehicle of claim 1, further comprising a main structural beam, said ~~transfer~~ means being mounted to said main structural beam.

9. (Currently Amended) The vehicle of claim 8, further comprising a door, said main structural beam being arranged in said door.

10. (Currently Amended) The vehicle of claim 1, further comprising a door having an inner panel and an outer panel defining the outer skin along the side of the vehicle, said ~~transfer~~ means being arranged between said inner panel and said outer panel.

11. (Currently Amended) A vehicle having a longitudinal axis between a front and rear of the vehicle such that a lateral direction is defined perpendicular to the longitudinal axis and an outer skin along sides of the vehicle, comprising:

a side impact crash sensor ~~for detecting a~~ arranged inward from the outer skin and to react to lateral force or acceleration applied to a side of the vehicle resulting from an impact of an object with the outer skin along a side of the vehicle;

mismatch ~~adjustment~~ accounting means interposed between the outer skin along the side of the vehicle and said side sensor for adjusting accounting for mismatch between a point of impact of ~~the~~ the object on the outer skin along the side of the vehicle and said sensor; and

an occupant restraint device connected to said sensor and arranged to deploy an occupant restraint based on the ~~force or lateral~~ acceleration detected by said sensor;

said sensor including a housing defining an interior and a mass arranged in said interior of said housing and movable in said interior of said housing relative to said housing in response to lateral acceleration of said sensor housing, movement of said mass being monitored such that said sensor initiates deployment of said occupant restraint based on movement of said mass.

12. (Currently Amended) The vehicle of claim 11, wherein said mismatch ~~adjustment~~ accounting means are arranged to transfer the lateral ~~force applied to the side of the vehicle by the object~~ acceleration to said sensor.

13. (Currently Amended) The vehicle of claim 11, wherein said mismatch ~~adjustment~~ accounting means is a plate ~~capable of remaining~~ which remains substantially undistorted in form upon ~~application of the lateral force to~~ impact of the object with the outer skin along the side of the vehicle.

14. (Original) The vehicle of claim 13, further comprising a main structural beam, said plate being mounted to said main structural beam.

15. (Currently Amended) The vehicle of claim 14, further comprising a door, said main structural beam being arranged in said door.

16. (Original) The vehicle of claim 13, wherein said plate is circular.

17. (Currently Amended) The vehicle of claim 13, further comprising a door having an inner panel and an outer panel defining the outer skin along the side of the vehicle, said plate being located between said inner panel and said outer panel.

18. (Currently Amended) The vehicle of claim 11, further comprising a main structural beam, said mismatch ~~adjustment~~ accounting means being mounted to said main structural beam.

19. (Currently Amended) The vehicle of claim 18, further comprising a door, said main structural beam being arranged in said door.

20. (Currently Amended) The vehicle of claim 11, further comprising a door having an inner panel and an outer panel defining the outer skin along the side of the vehicle, said mismatch ~~adjustment~~ accounting means being arranged between said inner panel and said outer panel.

21. (Currently Amended) A vehicle having a longitudinal axis between a front and rear of the vehicle such that a lateral direction is defined perpendicular to the longitudinal axis and an outer skin along sides of the vehicle, comprising:

a side impact crash sensor ~~for detecting a~~ arranged inward from the outer skin and to react to lateral force or acceleration applied to a side of the vehicle resulting from an impact of an object with the outer skin along a side of the vehicle;

a transfer ~~device~~ structure interposed between the outer skin along the side of the vehicle and said sensor suitable ~~for transferring a~~ and arranged to transfer the lateral force applied to the side of the vehicle by an object acceleration to said sensor; and

an occupant restraint device connected to said sensor and arranged to deploy an occupant restraint based on the ~~force or lateral~~ acceleration detected by said sensor,

said sensor including a housing defining an interior and a mass arranged in said interior of said housing and movable in said interior of said housing relative to said housing in response to lateral acceleration of said sensor housing resulting from the transference of the lateral acceleration of the outer skin of the vehicle through said transfer structure to said sensor, movement of said mass being monitored such that said sensor initiates deployment of said occupant restraint based on movement of said mass.

22. (Currently Amended) The vehicle of claim 21, wherein said transfer ~~device~~ structure is arranged to ~~adjust~~ account for mismatch between a point of impact of ~~[[an]]~~ the object on the side of the vehicle and said sensor.

23. (Currently Amended) The vehicle of claim 22, wherein said transfer ~~device~~ structure comprises a plate ~~capable of remaining~~ which remains substantially undistorted in form upon ~~application of the lateral force to~~ impact of the object with the outer skin along the side of the vehicle.

24. (Original) The vehicle of claim 23, further comprising a main structural beam, said plate being mounted to said main structural door beam.

25. (Currently Amended) The vehicle of claim 24, further comprising a door, said main structural beam being arranged in said door.

26. (Original) The vehicle of claim 23, wherein said plate is circular.

27. (Currently Amended) The vehicle of claim 23, further comprising a door having an inner panel and an outer panel defining the outer skin along the side of the vehicle, said plate being located between said inner panel and said outer panel.

28. (Currently Amended) The vehicle of claim 21, further comprising a main structural beam, said transfer ~~device~~ structure being mounted to said main structural beam.

29. (Currently Amended) The vehicle of claim 28, further comprising a door, said main structural beam being arranged in said door.

30. (Currently Amended) The vehicle of claim 21, further comprising a door having an inner panel and an outer panel defining the outer skin along the side of the vehicle, said transfer ~~device~~ structure being arranged between said inner panel and said outer panel.

31. (New) The vehicle of claim 1, wherein said sensor initiates deployment of said occupant restraint based on movement of said mass in excess of a threshold value.

32. (New) The vehicle of claim 11, wherein said sensor initiates deployment of said occupant restraint based on movement of said mass in excess of a threshold value.

33. (New) The vehicle of claim 21, wherein said sensor initiates deployment of said occupant restraint based on movement of said mass in excess of a threshold value.